

WHAT IS CLAIMED IS:

1. A proportional solenoid valve comprising:
  - a solenoid main body including a coil, a valve seat member having a seat portion, a valve element that is displaced in accordance with a current applied to the coil so as to be brought into and out of contact with the seat portion, and a valve guide portion that is arranged coaxially with the seat portion and guides the displacement of the valve element;
  - a housing that is attached to the solenoid main body so that a space is formed between the housing and the valve seat member, and forms an input/output flow path of a fluid; and
  - a seal member that is made of an elastic material and is provided in the space.
2. A proportional solenoid valve according to claim 1, wherein both of the valve guide portion and the valve seat member have a cylindrical shape, and the valve seat member is fitted and fixed around an outer peripheral surface of the valve guide portion.
3. A proportional solenoid valve according to claim 1, wherein each of the valve guide portion and the valve seat member has a cylindrical shape, and the valve seat member is welded and fixed to a tip portion of the valve guide portion.

4. A proportional solenoid valve according to claim 1, wherein the valve seat member has a cylindrical shape, and the valve guide portion is formed integrally with the valve seat member.